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EXAMINER	
SHINGLES, KRISTIE D	
ART UNIT	PAPER NUMBER
2141	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/649,489	PALMER ET AL.	
	Examiner	Art Unit	
	Kristie D. Shingles	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/27/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-24 are pending.

Information Disclosure Statement

I. The information disclosure statement (IDS) submitted on 8/27/03 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the Office. An initialed and dated copy of Applicant's IDS form 1449, is attached to the instant Office action.

Drawings

II. In compliance with 37 CFR 1.121(d) and 37 CFR 1.84(p)(5), Applicant is advised to review drawings to insure consistency and conformity between the reference numerals of the specification and the reference numerals of the drawing.

Claim Rejections - 35 USC § 103

III. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

IV. Claims 1, 3-9, 12-15 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lopke* (US 6,934,890) in view of *Freedman et al* (US 6,765,990) in further view of *Weibel et al* (US 7,036,066).

a. **Per claim 1**, *Lopke* teaches a method for dynamic distributed link table consistency management, the method comprising:

> (b) sending a signaling link table error detecting code request from a first link interface module having a first signaling link table to a second link interface module having a second link interface table (*col.3 lines 5-11 and 45-52, col.4 lines 1-12—error detection code request from first device to second device*);
>
> (c) at the second link interface module, in response to the request, computing an error detecting code for the second signaling link table and sending the error detecting code to the first link interface module (*col.3 lines 20-24, col.4 lines 34-54—compute error detection code and send to first device*);
>
> (d) at the first link interface module, computing an error detecting code for the first signaling link interface table and comparing the error detecting code computed for the first signaling link table to the error detecting code received from the second link interface module (*col.3 lines 25-31*).

Yet *Lopke* fails to explicitly teach a) maintaining, on a plurality of different link interface modules in a distributed signaling message routing system, a plurality of signaling link tables having the same signaling link entries; in response to detecting a match between the error detecting codes, repeating steps (b)-(d) for the next link interface module in the system; and in response to failing to detect a match between the error detecting codes, taking corrective action. However *Freedman et al* teach maintaining a plurality of link tables for monitoring the status of plural links in the network (*Figure 3, col.5 lines 25-35*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Lopke* with *Freedman et al* in order to provision the maintenance of multiple link tables related to different devices in the network that are associated with the same linkage data.

Weibel et al teach comparing a received error detection code with a generated error detection code, wherein when compared if the code match processing of the error code continues but if the codes fail to match signaling corruption for corrective or remedial actions (*col.4 line 59-col.5 line 20, col.8 lines 17-31, col.9 line 28-col.10 line 21*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Lopke* and *Freedman et al* with *Weibel et al* for the purpose of comparing the error code from one link database with the generated error code in order ensure the integrity of the error and to detect any corruption or discrepancies between the two link data structures.

b. **Claims 9, 15 and 18-21** contain limitations that are substantially similar and are rejected under the same basis.

c. **Per claim 3,** *Lopke* and *Freedman et al* with *Weibel et al* teach the method of claim 1 wherein maintaining a plurality of signaling link tables includes maintaining a plurality of IP socket tables (*col.3 lines 25-35*).

d. **Per claim 4,** *Lopke* and *Freedman et al* with *Weibel et al* teach the method of claim 1, *Weibel et al* further teach wherein taking corrective action includes: at the first link interface module: (a) sending an individual entry error detecting code request from the first link interface module to the second link interface module; (b) receiving the individual entry error detecting code from the second link interface module and computing an individual entry error detecting code for an entry in the first signaling link table; (c) comparing the individual entry error detecting code received from the second link interface module to the error detecting code computed for the individual entry by the first link interface module; (d) in response to detecting a match of the individual entry error detecting codes, repeating the individual entry checks for

each entry in the first signaling link table; and (e) in response to failing to detect a match between individual entry error detecting codes, performing a predetermined corrective operation (*col.10 lines 2-21*).

e. **Claims 5, 6, 12, 13, 22 and 23** are substantially similar to claim 4 and are therefore rejected under the same basis.

f. **Per claim 7,** *Lopke* and *Freedman et al* with *Weibel et al* teach the method of claim 1, *Weibel et al* further teach the method of claim 6 wherein correcting at least one of the individual entries includes correcting the entry in the first signaling link table to match a corresponding entry in a signaling link table on a link interface module that terminates the signaling link corresponding to the entry (*col.10 lines 15-21*).

g. **Per claim 8,** *Lopke* and *Freedman et al* with *Weibel et al* teach the method of claim 1, *Weibel et al* further teach the method of claim 7 wherein correcting at least one of the individual entries includes correcting link status information in the entry in the first link interface table (*col.10 lines 15-21*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Lopke* and *Freedman et al* with *Weibel et al* for the purpose of correcting the link status information in the first link table when it is determined that the status information is outdated or inconsistent with the link status information in the second link table, thus using the second link table as a master table.

h. **Per claim 14,** *Lopke* and *Freedman et al* with *Weibel et al* teach the method of claim 13, *Weibel et al* further teach wherein automatically correcting the mismatching entries includes identifying the owner of a signaling link table entry and requesting current link table entry status information from the owner (*col.10 lines 22-46*). It would have been obvious to one

of ordinary skill in the art at the time the invention was made to combine the teachings of *Lopke* and *Freedman et al* with *Weibel et al* for the purpose of correcting the link status information by contacting the owner of a link table to receive the link status information directly from the owner to ensure the integrity of the status data.

i. **Claim 24** is substantially similar to claim 14 and is therefore rejected under the same basis.

V. Claims 2, 10, 11, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lopke* (US 6,934,890) and *Freedman et al* (US 6,765,990) in view of *Weibel et al* (US 7,036,066) in further view of *Nelson et al* (US 6,895,088).

j. **Per claim 2,** *Lopke* and *Freedman et al* with *Weibel et al* teach the method of claim 1, yet fail to explicitly teach wherein maintaining a plurality of signaling link tables includes maintaining a plurality of SS7 signaling link tables. However *Nelson et al* teach maintaining a SS7 link database for storing the SS7 links data (*col.13 line 55-col.14 line 9*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Lopke, Freedman et al* and *Weibel et al* with *Nelson et al* in order to provide an SS7 system for maintaining information and status data of telecommunication links.

k. **Claims 10, 11, 16 and 17** are substantially similar to claim 2 and are therefore rejected under the same basis.

Conclusion

VI. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Roa-Diaz (6940810), Regan et al (6578086), Morohashi et al (20020054593).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds

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